Mixed-Fleet Approach

Stryker-Bradley Pairing Best Solution for US Army

All of us want our fighting men and women to have the modern equipment they need. The US Army has been planning for decades to replace its 1960s-era troop carriers with a safer, more efficient modern vehicle. Its current approach, the armored multi-purpose vehicle (AMPV), has been spared from the budget ax by Army planners despite devastating cuts in other parts of the service's modernization plan, including the cancellation of the $30 billion ground combat vehicle, which was to have replaced the Bradley fighting vehicle. And with good reason: The world's premier land-combat force should not be relying on troop carriers conceived more than half a century ago, long before we were faced with the frequent use of deadly improvised explosive devices (IEDs) or other dangers from more sophisticated and powerful weapons.

However, the proposed AMPV program does not seem to make sense in today's budget environment or tomorrow's likely combat conditions. The apparent Army plan is to buy a fleet of tracked vehicles based upon the existing Bradley, reasoning that surplus Bradleys are available for reuse and can fulfill the five main tasks the new AMPV is intended to accomplish: medical evacuation, medical treatment, mortar carrier, mission command and general purpose troop transport.

The Army's plan makes sense — up to a point.

Where this potential plan begins breaking down is in the areas of cost and operational performance. Tracked vehicles like Bradley are intrinsically more expensive to operate than wheeled vehicles, and the Bradley will require a significant up-front investment to improve the design as compared with other readily available solutions. Tracks also are slower and noisier than wheeled vehicles, and typically exhibit far lower readiness rates.

That does not mean wheeled vehicles are a better solution for AMPV across the board; it means each type of vehicle has advantages, depending on circumstances.

The logical approach is a mixed fleet of tracked and wheeled vehicles, complementing each other in operational formations. The Stryker is the most common combat vehicle in the active-duty Army and affords far better IED protection in its double-V hull design innovation than does the Bradley, exceeding the force protection requirement established by the Army for AMPV.

Additionally, the cost per mile to operate a Stryker is six times less than a Bradley, and because Stryker already has been designed and built to perform four of the five AMPV missions, the Army could forgo millions of dollars in development costs and several years of delay for an expensive set of modifications to the Bradley to do the same things. For example, an ambulance version of Stryker is available today and could go into production and fielding almost immediately.

Obviously, there are some circumstances in which only a tracked vehicle will do. No wheeled vehicle in the world can meet the last 4 percent of pass/ fail AMPV maneuver requirements in the toughest off-road terrain over soft soil and mud, or the most difficult vertical obstacles. But the question Congress and Army planners need to ask themselves is whether it really makes sense to spend nine years more in development and hundreds of millions of dollars acquiring an all-Bradley fleet for all AMPV missions when that last 4 percent of requirements could be met with a less expensive mixed fleet. Splitting the fleet between the two platforms could potentially

save close to $2 billion across the lifetime of the AMPV program, critical funds in a time of budgetary restraints.

The mixed-fleet concept might not make sense if it entailed developing two new vehicles. But neither Bradley nor Stryker is new; thousands of each are already in the force. That means a mixed fleet would not increase the logistical complexity or sustainment cost of the force.

A 2008 Army study actually found that the number of mechanics needed in an armored brigade combat team would go down if Strykers replaced the existing obsolete tracked utility vehicles, but that advantage would be lost if Bradleys were used as the replacement vehicle.

In fact, the Army has introduced the Stryker in its armored brigade combat team formations as a scout vehicle to detect signs of nuclear, biological or chemical warfare agents, so the requirement for logistical and mechanical support for Stryker in those units has already been established.

A mixed-fleet solution would create a division of labor in the AMPV role that reduces overall costs while providing operational flexibility. And it could begin fielding to get soldiers out of the existing, vulnerable 52-year-old utility vehicle much faster.

Fielding a mixed fleet is the kind of balanced decision-making that fits the Army's current circumstances. With so much of its modernization funding draining away in response to budget caps, the service needs to find new ways of sustaining capabilities honed in a dozen years of war. And most important, it needs to support deployed soldiers in a timely fashion. A mixed fleet for the AMPV role is an inspired response to these imperatives.

By Sen. Rob Portman , R-Ohio, home to the US Army Joint Systems Manufacturing Center, which builds Abrams tanks and Stryker combat vehicles.